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| 10/593,871 | 09/22/2006 | Takayuki Sasaki | 2006_1469A | 5841 |

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| EXAMINER |
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| GARLAND, STEVEN R |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *22 September 2006*.

2a)☐ This action is **FINAL**.　　　　2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-16* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 September 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☒ All　b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date *9/22/06*.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1.      Claims 1-16 are pending.

2.      The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

3.      Remarks: regarding the claim language, a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Further functional and an intended use of the claimed invention such as "thereby clauses" must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

4.      The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5.      Claims 5-10 and 14-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5, lines 4-5 appear to contradict claim 1, lines 10-11, in that claim 1

appears to only have one combination selected not plural combinations as in claim 5.

Claim 14 and its parent claim 11 have a similar problem.

The remaining claims fall with the parent claims.

6.      The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7.      Claims 1,4,11, and 13, as understood, are rejected under 35 U.S.C. 102(b) as

being anticipated by Shapiro 6,067,482.

Shapiro teaches control of cycling refrigeration units (operative and inoperative

periods) selecting a combination of units for supplying power to based on total power

consumption. ( col. 3, lines 44-54) Shapiro also teaches determining all the possible

load combinations and calculating the total power demand (fig. 10), load shifting (col.

1, lines 5-9) , use of a controller having a processor which selects a combination and

has means to for calculating a total power consumption ( fig. 4). Shapiro also teaches

reception means 116 to receive the selected combination; repeating the selection

process at various intervals of time ( col. 10, lines 7-29) and the use of priority

(subordinate priority col. 10, lines 30-40). See the abstract; figures; col. 1, lines 5-9;

col. 2, lines 59-67; col. 3, line 1 to col. 4, line 28; col. 6, lines 18-24; col. 7, lines 1-45;

col. 8, lines 8-43; col. 10, lines 7-67; col. 11, line 21 to col. 12, line 5; col. 15, lines 26-

33; and the claims.

8.      Claims 1 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by

Berglund et al. EP 0955573 (cited by applicant).

Berglund et al. discloses regarding claim 1

a peak power-controlling apparatus comprising: a generating unit operable to generate

at least one activating combination available within a predetermined period of time to

activate a plurality of devices, each of the plurality of devices having an activating period

and required electrical power (paragraph 30), the activating period including an

operative period of time and an inoperative period of time (paragraph 32),

a calculating unit operable to calculate a total consumption value for each of the

at least one activating combination, thereby providing at least one calculated total

power consumption value (paragraph 35), and a selecting unit operable to select, as a

selection result, one of the at least one activating combination based on the at least one

calculated total power • consumption value (paragraph 36). Similar comments apply to

claim 11.

9.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

10.     This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

11.     Claim 3 is  rejected under 35 U.S.C. 103(a) as being unpatentable over  Shapiro

6,067,482.

Shapiro teaches control of  cycling refrigeration units (operative and inoperative

periods)  selecting  a combination of units for supplying power to based on total power

consumption.  ( col. 3, lines 44-54) Shapiro also teaches determining all the possible

load combinations and calculating the total power  demand  (fig. 10), load shifting (col.

1, lines 5-9) , use of a controller having a processor  which selects a combination and

has means to  for calculating a total power consumption ( fig. 4). Shapiro also teaches

reception means  116 to receive the selected combination; repeating the selection

process at various intervals of time ( col. 10, lines 7-29) and the use of priority

(subordinate priority col. 10, lines 30-40).   See the abstract; figures;  col. 1, lines 5-9;

col. 2, lines 59-67; col. 3, line 1 to col. 4, line 28; col. 6, lines 18-24; col. 7, lines 1-45;

col. 8, lines 8-43; col. 10, lines 7-67; col. 11, line  21 to col. 12, line 5; col. 15, lines 26-

33; and the claims.

Shapiro however does not specifically state that the shortest cycle is used but

does teach that the selection process is repeated at intervals. ( col. 10, lines 7-29)

It would have been obvious to one of ordinary skill in the art to modify Shapiro to

repeat the process at intervals based on the shortest possible activating time to avoid

damage to a compressor by short cycling and damaging a compressor.

12.      Claims 2, 5,6, 12, and 14, as understood, are rejected under 35 U.S.C. 103(a)

as being unpatentable over Shapiro 6,067,482 in view of Teramoto et al. JP 7-33280

(with machine translation).

Shapiro teaches control of cycling refrigeration units (operative and inoperative

periods) selecting a combination of units for supplying power to based on total power

consumption. ( col. 3, lines 44-54) Shapiro also teaches determining all the possible

load combinations and calculating the total power demand (fig. 10), load shifting (col.

1, lines 5-9) , use of a controller having a processor which selects a combination and

has means to for calculating a total power consumption ( fig. 4). Shapiro also teaches

reception means 116 to receive the selected combination; repeating the selection

process at various intervals of time ( col. 10, lines 7-29) and the use of priority

(subordinate priority col. 10, lines 30-40). Shapiro also teaches determining if the power

source can meet the load requirements (col. 8, lines 19-43) See the abstract; figures;

col. 1, lines 5-9; col. 2, lines 59-67; col. 3, line 1 to col. 4, line 28; col. 6, lines 18-24; col.

7, lines 1-45; col. 8, lines 8-43; col. 10, lines 7-67; col. 11, line 21 to col. 12, line 5; col.

15, lines 26-33; and the claims.

Shapiro teaches selecting among different combinations but does not state that

more than one combination can be selected and selecting between the selected

combinations.

Teramoto et al. teaches determining if a plurality of combinations satisfy a condition and then picking one of the combinations such as to minimize power . (abstract, claim 3 of the machine translation).

It would have been obvious to one of ordinary skill in the art to modify Shapiro in view of Teramoto and if multiple combinations are useable to select between them on the basis of a tie breaker condition such as using the minimum power to break the tie.

13.     Claims  7,8,10, 15, and 16 are  rejected under 35 U.S.C. 103(a) as being unpatentable over  Shapiro 6,067,482  in view of Teramoto et al. JP 7-33280 (with machine translation) and Rodgers et al.  2007/0010916.

Shapiro teaches control of  cycling refrigeration units (operative and inoperative periods)  selecting  a combination of units for supplying power to based on total power consumption.  ( col. 3, lines 44-54) Shapiro also teaches determining all the possible load combinations and calculating the total power  demand  (fig. 10), load shifting (col. 1, lines 5-9) , use of a controller having a processor  which selects a combination and has means to  for calculating a total power consumption ( fig. 4). Shapiro also teaches reception means  116 to receive the selected combination; repeating the selection process at various intervals of time ( col. 10, lines 7-29) and the use of priority (subordinate priority col. 10, lines 30-40).  Shapiro also teaches determining if the power source can meet the load requirements (col. 8, lines 19-43)  See the abstract; figures; col. 1, lines 5-9; col. 2, lines 59-67; col. 3, line 1 to col. 4, line 28; col. 6, lines 18-24; col. 7, lines 1-45; col. 8, lines 8-43; col. 10, lines 7-67; col. 11, line  21 to col. 12, line 5; col. 15, lines 26-33; and the claims.

Shapiro teaches selecting among different combinations but does not state that more than one combination can be selected and selecting between the selected combinations.

Teramoto et al. teaches determining if a plurality of combinations satisfy a condition and then picking one of the combinations such as to minimize power . (abstract, claim 3 of the machine translation).

It would have been obvious to one of ordinary skill in the art to modify Shapiro in view of Teramoto and if multiple combinations are useable to select between them on the basis of a tie breaker such as using the minimum power.

Shapiro and Teramoto however do not specifically teach selecting among a plurality of useable combinations based on priority, using the maximum number of devices, etc.

Rodgers et al. 2007/0010916 teaches selection on the basis of priority (paragraph 0070), keeping the most devices powered (0104), etc. depending on the user requirements. See the abstract, figures, numbered paragraphs 0004, 0005, 0019, 0025, 0067, 0070, 0071, 0073, 0074, 0079, 0094, 0095, 0100, 0102, 0104, 0105, and the claims.

It would have been obvious to one of ordinary skill in the art to modify Shapiro and Teramoto in view of Rodgers and base the tie breaking on other conditions such as priority of the devices, keeping the most devices powered as suggested by Rodgers to break the tie.

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14.     Claims  9,10, and 16  are  rejected under 35 U.S.C. 103(a) as being

unpatentable over  Shapiro 6,067,482  in view of Teramoto et al. JP 7-33280 (with

machine translation) in view of Leyde 4,064,485.

Shapiro teaches control of  cycling refrigeration units (operative and inoperative

periods)  selecting  a combination of units for supplying power to based on total power

consumption.  ( col. 3, lines 44-54) Shapiro also teaches determining all the possible

load combinations and calculating the total power  demand  (fig. 10), load shifting (col.

1, lines 5-9) , use of a controller having a processor  which selects a combination and

has means to  for calculating a total power consumption ( fig. 4). Shapiro also teaches

reception means  116 to receive the selected combination; repeating the selection

process at various intervals of time ( col. 10, lines 7-29) and the use of priority

(subordinate priority col. 10, lines 30-40).  Shapiro also teaches determining if the power

source can meet the load requirements (col. 8, lines 19-43)  See the abstract; figures;

col. 1, lines 5-9; col. 2, lines 59-67; col. 3, line 1 to col. 4, line 28; col. 6, lines 18-24; col.

7, lines 1-45; col. 8, lines 8-43; col. 10, lines 7-67; col. 11, line  21 to col. 12, line 5; col.

15, lines 26-33; and the claims.

Shapiro teaches selecting among  different combinations but does not state that

more than one combination can be selected and  selecting  between the selected

combinations.

Teramoto et al. teaches determining if a  plurality of combinations satisfy a

condition  and then picking one  of the combinations such as to minimize power .

(abstract, claim 3 of the machine translation).

It would have been obvious to one of ordinary skill in the art to modify Shapiro in view of Teramoto and if multiple combinations are useable to select between them on the basis of a tie breaker such as using the minimum power.

Shapiro and Teramoto however do not specifically teach selecting among a plurality of useable combinations based on priority, or on the basis of the number of times a device is used.

Leyde 4.064,485 teaches powering a device on the basis of priority and a number of times a device has been actuated. See the abstract; figures; col. 2, lines 1-57.

It would have been obvious to one of ordinary skill in the art modify Shapiro and Teramoto in view of Leyde and base the tie breaking based on priority or number of times a device has been actuated to equalize device lifetimes.

15.     Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN R. GARLAND whose telephone number is (571)272-3741. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 571-272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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